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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,242	09/09/2003	Mun Choon Chan	29250-001000/US	4055

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CAPITOL PATENT & TRADEMARK LAW FIRM, PLLC
ATTN: JOHN CURTIN
P.O. BOX 1995
VIENNA, VA 22183

EXAMINER

PHAM, BRENDA H

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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06/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/657,242	Applicant(s) CHAN ET AL.	
	Examiner Brenda Pham	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7,9 and 10 is/are rejected.
- 7) ☐ Claim(s) 2,5,6,8,11 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-12 are pending in the application.

Claim Objections

2. Claims 8, 11 and 12 are objected to because of the following informalities: the "operable to" should be deleted from claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-4, 7, 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **KALAMPOUKAS et al (US 6,438,101 B1)**.

Regarding claims 1 and 7 KALAMPOUKAS et al discloses a method for maximizing the throughput of Transmission Control Protocol/Internet Protocol (TCP/IP) data comprising the steps of:

estimating delay and rate variances associated with the least one link;

modifying a receive window value of an acknowledgement packet; and

transmitting a modified acknowledgment packet containing the modified receive window value to a source of TCP/IP data (see figure 3, 5 and column 5-6, lines 39-67 and 1-37, respectively).

Although KALAMPOUKAS et al does not teach the method is implement in a wireless network link. It would have been obvious to one skilled in the art at the time of the invention was made to implement method of KALAMPOUKAS et al in a wireless network.

Regarding claims 3 and 9, KALAMPOUKAS et al further teach wherein the receive window value comprises a number of packets ("This window size determines the maximum number of packets that a receiver permits the sender to send to the receiver so that in the worst case, even if all the packets arrived at the receiver from the sender at once, the packets would not be lost at the receiver", column 1, lines 45-50).

Regarding claims 4 and 10, KALAMPOUKAS et al teach wherein the number of packet is substantially within the range of kilobyte to 64 kilobytes (see column 10, line 20-25, "the data packets comprise 1000 bytes of data.")

Allowable Subject Matter

5. Claims 2, 5-6, 8, 11-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the prior art made of record fails to teach or fairly suggests in combination the steps of: receiving the modified acknowledgement packet; comparing the receive

window value within the modified acknowledgement packet to a congestion window value; selecting the lesser of the receive window value and congestion window value; and transmitting an amount of data toward the wireless link based on the selected value.

The prior art made of record further fails to teach or fairly suggests in combination the steps of determining whether a data buffer is substantially close to empty; determining whether the delay and rate variances have substantially changed; and storing one or more ACKs when said buffer is not substantially close to empty or when said variances have not substantially changed.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ghani et al (US 6,215,769 B1) disclose enhanced acknowledgment pacing device and method for TCP connections.

Nguyen (US 5,442,637) discloses reducing the complexities of the transmission control protocol for a high-speed networking environment.

Siu et al (US 6,252,851 B1) discloses method for regulating TCP flow over heterogeneous networks.

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Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Pham whose telephone number is (571) 272-3135. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild, can be reached on (571) 272-2092.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

May 29, 2007

Brenda Pham

A handwritten signature in cursive script that reads "Brenda A. Pham". The signature is written in black ink and is positioned above the printed name and title.

BRENDA PHAM
PRIMARY EXAMINER